Value innovation modelling: Design thinking as a tool for business analysis and strategy

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Abstract
This paper explores the use of multiple perspective problem framing (English 2008) as a tool to reveal hidden value and commercial opportunity for business.

Creative thinking involves the interrelationship of parameters held open and fluid within the cognitive span of the creative mind. The recognition of new associations can create new value that can lead to innovation in designed products, intellectual property and business strategy.

The 'Ideas-lab' process is based on the proposition that a company's capacity for innovation is dependent on the way the business is able to see its problems and opportunities. In this process the attributes of a company and the experience of the researchers are considered as the parameters of a design problem. It is therefore important to acknowledge the commercial experience of the project researchers, all of whom have a proven track record in helping businesses develop, exploit and protect their know how.

Semi structured interviews were carried out with key individuals in 34 companies. The resulting data was assessed on a company-by-company basis through a process of multiple perspective problem framing, enabling key nodes, patterns and relationships to be identified and explored. A 'Cornerstones of Innovation' report was prepared to inform each company of the observations made by the researchers.

The paper describes the methods adopted and summarises the feedback from participating companies. Case studies are highlighted to demonstrate ways in which the process influenced the actions of particular businesses, and the commercial outcomes that resulted. Finally the researchers reflect on the structure of the Ideas-lab process.

Keywords
Value Innovation, Design Thinking, Multiple Perspective Problem Framing, Performance Management, Business Mapping.

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Theory

This paper is founded on two main areas of theoretical knowledge: Multiple perspective problem framing and organisational design. The 'ideas-lab' process described in the paper has been developed through the practical combination of these areas of knowledge in relation to the analysis of 34 companies. We will first summarise key theories and show how these contribute to the approach taken by the researchers.

Multiple perspective problem framing can be considered as a development of the radiant mind mapping techniques pioneered by Tony Buzan (Buzan & Buzan 1996). Buzan's technique involves the growth of a tree diagram from a single centre of enquiry and as such can be used to represent the designer's perception of an issue in context. However because this represents a single viewpoint potential opportunities or other ways of seeing can be hidden. Integrated mind mapping techniques can offer multiple centres of enquiry enabling alternative ways of seeing to be communicated in the same map. English (2008) describes multiple perspective problem framing as a way to 'reveal value by considering a problem or scenario in different ways. This multiple perspective approach to the framing of design problems and opportunities requires designers to acknowledge their own cognitive processing talents and capabilities in order to give form to evolving networks of ideas. In other words, the designer must develop ways to engage with and make sense of interrelated information so that it is not lost in a fog of complexity'. English claims that designers can use integrated mapping techniques to:

- purposefully develop and communicate their cognitive structure in relation to a particular area of investigation
- facilitate reflective self exploration that lifts the level of their own awareness and that of their clients and collaborators
- enrich their understanding of the problem since it considers the design space from different points of view
- 'pick the problem up' from any centre of enquiry - to move around the evolving design space and to envisage new ways of seeing
- reveal potential for agreement by integrating conflicting viewpoints.

Whilst such an approach is not uncommon in design process this paper reports on the use of multiple perspective mapping techniques to reveal hidden value in business, employing a creative process that as DeBono (1996) recognizes 'involves breaking out of established patterns in order to look at things in a different way'. The researchers carried out semi-structured interviews with key executives in each company. Data from the main interview (with a managing director or similar) was where appropriate triangulated with data from interviews with up to two other company executives. The resulting data was used to create 'integrated mind maps' (English 2008) that aim to articulate the 'value arena' of each company. This process involved the researcher who carried out the interviews reporting the data back to another researcher who simultaneously created maps of the value arena occupied by the company. It is important here to note the tacit knowledge brought to the process by the researchers themselves who combined have over 40 years experience in innovation and enterprise. This has implications regarding the replicability of the process outlined, in particular the mapping stage.

The second area of theoretical knowledge to underpin the research is that of organisational design and in particular the design of successful and high performance organisations. Galbraith's 'Star Model' (1995) (Figure 1) provides a framework for organisational design consisting of five policies:

- Strategy - determines direction.
- Structure - determines the location of decision-making power.
- Processes - describe the flow of information; they are the means of responding to information technologies.

- Rewards - influence the motivation of people to perform and address organisational goals.
- People policies - influence and frequently define the employee's mind sets and skills

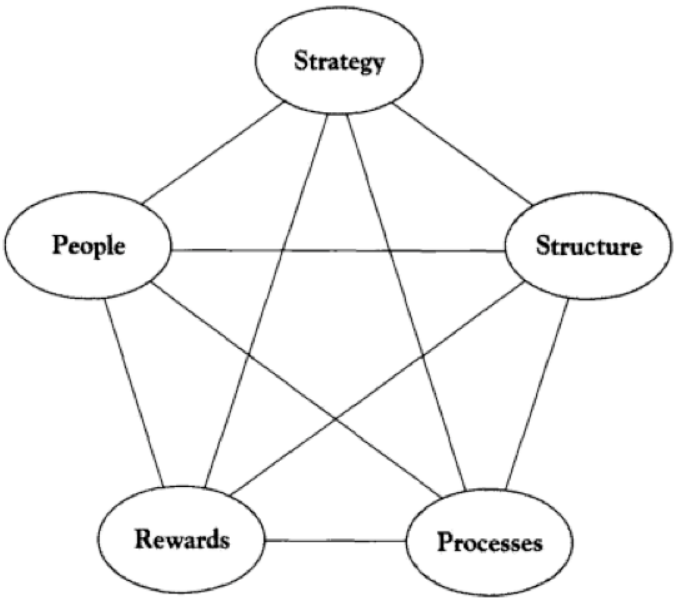

Figure 1: Galbraith 1995 'Star Model'

In Galbraith's model each of these policies can be considered as a separate centre of enquiry, however when they are combined the model can represent an integrated map of the company in question. Thus Galbraith's star model can represent (in general terms) a multiple perspective view of a business similar to the interrelating parameters of a design problem.

Since the aim of the ideas-lab process is to reveal hidden value in companies the researchers needed to be able to make practical judgements within each area of enquiry. It was therefore necessary to relate policies to performance in practice.
De Waal's (2006) analysis of 91 studies identified eight key characteristics of high performance organisations; organisational design, strategy, organisational process, technology, leadership, individuals and roles, culture, environment. De Waal claims that these elements 'seem to influence the ability of organizations to achieve high performance'. De Waal's research was reviewed and distilled leading to the following interpretation where prominent aspects of investigation are highlighted:

1. Organisational design – constantly realign the business in line with **changing internal and external circumstances**, **networked collaboration** across functional and organisational borders, sharing of information and knowledge within a consistent responsibility structure, responsiveness;
2. Strategy – **focus on value**, clear and challenging goals, common understanding of the strategic direction, balancing long- and short-term focus;
3. Organisational process – **innovate products and services**, rewards and incentives for continuous improvement, measure what matters, simplify processes and deploy resources effectively;
4. Technology – **Identify and exploit new technology** to gain competitive advantage;
5. **Leadership** – coach and **facilitate**, grow leaders from within, stimulate change and improvement, allowing experiments and mistakes, action focused decision making, long term orientation;

6. Individuals and roles – master **core competencies**, engage and involve the workforce. Align employer behaviour and values with company values and direction;
7. Culture – **Shared core values** and identity, adaptive performance-driven **responsibility**, transparency and trust;
8. Environment – enhance customer value creation, be part of a **value-creating network.**

Because the ideas-lab process aims to reveal hidden value in businesses and to develop strategies to commercialize this value, the aspect of strategy has been placed at the centre of the ideas-lab star model (figure 2). As Galbraith states (1995) "Strategy is the company's formula for winning. The company's strategy specifies the goals and objectives to be achieved as well as the values and missions to be pursued; it sets out the basic direction of the company. The strategy specifically delineates the products or services to be provided, the markets to be served, and the value to be offered to the customer. It also specifies sources of competitive advantage and strives to provide superior value".

The final theoretical point to make relates to the cognitive span of the investigator. Whilst de Waal has identified 8 possible centres of enquiry Whitehead (2007) suggests that when framing solution space, the designers mind is only able to span a maximum of six or seven concurrent issues and that the choice of these issues is critical to the potential for value innovation. These key issues are described as "cornerstones of innovation" (English 2007) because they represent the most significant parameters of the design arena. English states that *'Cornerstones of Innovation* recognise the designers cognitive 'span' of up to 6 or 7 key factors that in combination frame the problem. By concept mapping cornerstones of innovation the designer is able to model problem space at an optimum psychological size'.

Ideas-lab Centres of Enquiry

Based on Whitehead's (2007) observations the eight characteristics distilled from Waal's research were reduced to six main areas of enquiry orbiting around a central focus on value and strategy (figure 2). By doing this, the researchers were able to cognitively span all six areas of investigation simultaneously. The ideas-lab centres of enquiry as shown in figure 2 are as follows:

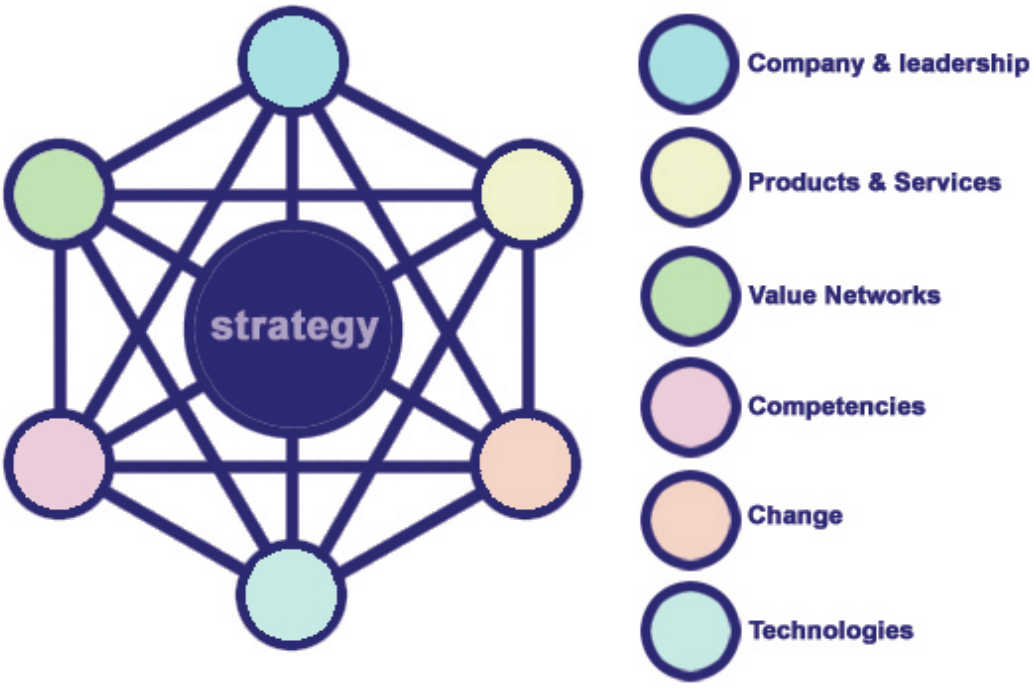

Figure 2: Ideas-lab Star – based on cornerstones of innovation model (English 2007)

(i) Company Leadership - Drive *(de Waal 2006, 5&7)*
History, status, assets and liabilities, turnover, revenue, management, vision, culture, structure, philosophy **(Shared core values).** What drives the company?

(ii) Value Creating Networks – upstream and downstream networks *(de Waal 2006, 8)*
Suppliers, partners, customers, competition, finance, differentiation, market characterization and networks. How and where does the company tap into networks of value to generate revenue?

(iii) Products and Services - Capability *(de Waal 2006, 3)*
Resources, Machinery, Development of products and services, associated costs, contract-work, standards, response, aftercare and value. What is the relationship between customers and products/services?

(iv) Technologies - Intellectual Property *(de Waal 2006, 4)*
Intellectual property portfolio, rights, maintenance, applications, improvements, development of value, marketplace. What does the company technology offer and how is it protected?

(v) Change – Opportunity *(de Waal 2006, 1)*
Environment, context & company, build value, R&D, business threats, market forces and opportunities. What is changing internally and externally and what opportunities does this open up?

(vi) Core competencies *(de Waal 2006, 6)* **- Individuals and Roles**
Expertise, knowledge, know-how, evolution, challenge, future.
What does the company know and what can it do?

The focus of the ideas-lab star model is on **strategy** *(de Waal 2006, 2),* this combines the value proposition with a route to market and can be used to calculate potential revenue. This provides a valuable tool that can contribute to a business plan with a view to securing finance.

Method

The ideas-lab process was initially implemented in 2007 through a collaborative innovation partnership between Northumbria University, Ward Hadaway Law Firm and the regional development agency, One North East. Following the success of this programme the process was made available as a service to members of NetparkNet virtual science park and directly on a company-by-company basis (2008-2009). Most of the 34 businesses analysed as part of this study are SMEs (Small to Medium Enterprises) with 5 – 250 employees although some larger companies were also analysed.
A list of generic questions was prepared to explore the centres of enquiry outlined above. The questions were tailored to each company and each analysis followed the same pattern taking approximately six man-days in each case.

Following initial company research and refinement of interview questions one member of the team (the scout) met with the client company on-site. Semi-structured interviews were undertaken with key individuals and data was recorded for each centre of enquiry. Data from the main interview (with a managing director or similar) was where appropriate triangulated with data from interviews with up to two other company executives. Meeting on-site also provided the opportunity for the researcher to tour the company's facilities and to record any additional data deemed relevant. Following this meeting the scout reported the data back to another member of the research team (the modeller) who, as part of the process, created a 'radiant map' for each centre of enquiry. This was done on a whiteboard or large piece of paper, sometimes using post-it notes, enabling single centres of enquiry to be overlaid using integrated mind-mapping techniques (figure 3).

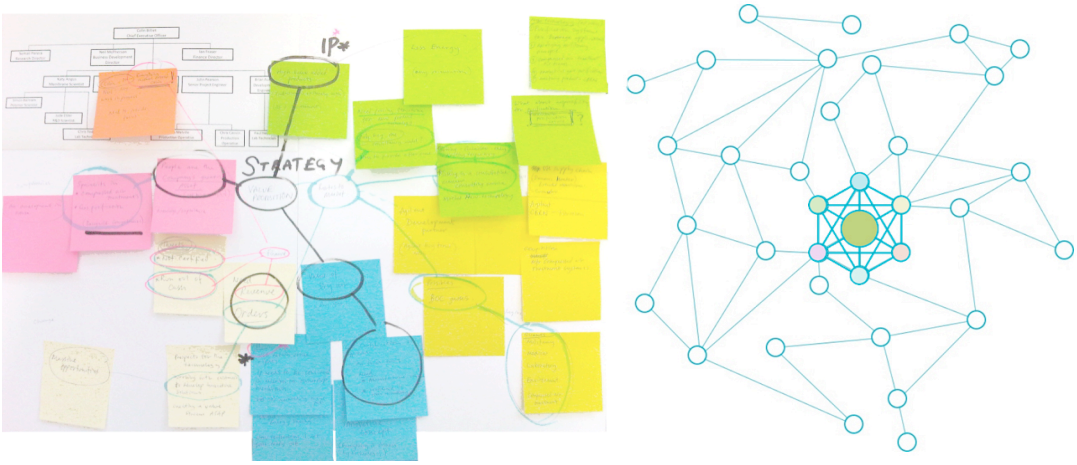

Figure 3: Left - showing an example of the mapping process. Right – showing a theoretical model of this process.

By creating a flexible viewpoint the researchers aim to reveal patterns within the data and relationships between centres of enquiry. The process aims to identify the foundation elements at the core of the company's value, these can include technologies, processes, know how, networks, intellectual property, company culture and structures. We have referred to the relationship of these elements as the company's 'Value Arena' that forms the foundation for any strategic recommendations on how to increase the revenue of the business. The results of the process were reported back to the interviewees in a 'Cornerstones of Innovation' (COI) report detailing:

- the company's value arena
- new ideas on how to increase the revenue of the business
- the value of the company know how and intellectual property, including guidance on its protection and development
- possible sources of professional and academic support that could assist in the implementation of any of the ideas outlined

Results

Table 1 describes the nature of the companies analysed by rating each of the above centres of enquiry from 1-10 (where 1 is the lowest score and 10 is the highest). ***Referring to Table 1:*** Following the mapping process, each centre of enquiry was given a mark out of 10 (columns i-vi); the marks for the six centres of enquiry were then added up and expressed as a percentage (column x). Columns (i) to (vi) represent a current assessment of each aspect of the company, column (x) provides an overall assessment of the value arena. The yellow blocked sections show the significant areas of opportunity identified by the researchers. Column (y) estimates the impact of the process on the value of the company calculated with respect to the following factors as detailed in table 2:

i) Value arena percentage mark
ii) Number of elements ideas-lab would assist
iii) Impact of ideas-lab per element
iv) Size of the company
v) Strength of the value opportunity & feedback

Table 1: Companies analysed against ideas-lab centres of enquiry.

Company No	Business type	No employees	(i) Company & leadership	(ii) Products &services	(iii) Value Networks	(iv) Competencies	(v) Change	(vi) Technologies	(x) Value arena %	(y) Ideas-lab value impact %
1	Management software	5	5	6	6	7	3	2	48.3	13
2	GPS systems	9	3	9	4	9	3	4	53.3	19
3	Road Bollards	6	9	9	9	9	9	7	86.7	5
4	NHS & legal software	12	6	7	8	9	3	1	56.7	6
5	Dehumidifiers & air con	240	8	9	9	9	8	7	83.3	1
6	Renewable energy	100	8	10	9	9	9	9	90.0	3
7	Wave energy	8	4	7	2	6	8	7	56.7	6
8	Mechanical design	5	1	7	1	9	3	7	46.7	15
9	Pipeline testing	50	7	8	8	9	4	8	73.3	7
10	Medical tuition tool	9	3	8	3	9	9	7	65.0	7
11	3D software & web	7	3	5	4	7	9	6	56.7	4
12	Policy & fund org.	250+	7	7	5	6	8	4	61.7	1
13	Battery products	100	3	7	5	9	9	9	70.0	2
14	Construction	25	9	8	9	9	9	7	85.0	5
15	Electrical manufacturer	8	8	9	8	9	7	7	80.0	8
16	Learning software	5	4	7	4	8	7	2	53.3	19
17	Organic chemicals	6	7	6	3	8	6	4	56.7	8
18	Waste treatment plant	5	7	7	6	8	8	2	63.3	8
19	R&D in crystal displays	40	6	1	1	9	9	6	53.3	14
20	Moulding company	55	7	9	8	9	2	1	60.0	3
21	Filtration	100	6	7	8	10	3	4	63.3	3
22	Surface analysis	20	6	5	4	8	6	6	58.3	4
23	Safety instruments	80	8	8	9	9	5	7	76.7	2
24	Surveillance products	5	3	2	4	9	5	8	51.7	11
25	Energy Turbines	20	5	9	9	9	6	7	75.0	5
26	Precision engineering	20	5	9	9	9	2	7	68.3	9
27	Modified fibres	5	1	3	4	6	7	5	43.3	18
28	Chemicals & materials	150	9	9	9	10	9	9	91.7	1
29	Filtration products	200+	9	9	10	10	8	8	90.0	1
30	Fibre waste management	5	1	5	2	8	2	7	41.7	16
31	Mobility products	7	4	6	3	6	4	5	46.7	7
32	Bio fuel	5	3	3	4	6	6	4	43.3	9
33	Renewable energy product	6	3	4	4	9	4	6	50.0	17
34	Dry air products	13	8	9	7	9	9	9	85.0	6

Table 2: Key to ideas-lab value impact.

Stage 1 multiplier	Value arena %
x1.2	40 to 55
x1.1	56 to 70
x1.09	71 to 80
x 1.08	81 to 90
x1.07	91 to 100

Stage 2 multiplier	Issues highlighted
x1.1	1
x1.2	2
x1.3	3
x1.4	4
x1.5	5
x1.6	6

Stage 3 multiplier	Difference between highlighted scores
x0.7	0 to 5
x0.9	6 to 10
x1.1	11 to 15
x1.3	16 to 20
x1.5	21 to 25+

Stage 4 multiplier	Employee weighting
none	0 to 50
x0.3	51 to 100
x0.2	100 to 200
x0.1	200+

Observations and Evaluation

Through the analysis of 34 businesses the researchers identified 27 value opportunities indicating that the process was 80% successful in revealing commercial value for the participating companies.

2 of the reports recommended that the company in question should not continue on its current path or should terminate further development of certain technologies. On the surface this may have appeared negative but the findings demonstrated that this prevented further funds being wasted and provided an opportunity to utilize the resources in a more focused and productive way.

5 of the reports could be characterized as an assessment of the key issues identified within the value arena. These 'health check' reports were used as an independent appraisal and as confirmation that the company management was on the right course. 2 of these reports included recommendations to contact specific funding organizations.

Company 15 commented *"The report highlighted in writing what the company had already thought which gives Peter confidence from an independent body to work out now how to go about implementing the course of action for some of the points raised."*

Shared responsibility

The ability to reveal hidden value through the process is predicated on the following issues:

i) Other than information available in the public domain, a company and its technology is likely to be unknown to the researchers before commencement of the process.
ii) Value is optimised if there is open communication and a willingness on behalf of the company to disclose all relevant information (under NDA where applicable).

As Company 26 recognised in its feedback *"The very act of discussing what we considered doing made us logically think about the company. Verbalising our thoughts cleared our thoughts."*

There is a shared responsibility for both researchers and company management to capitalise on the enquiry process. Since the researchers enter into the unknown in search of value opportunities it is unclear at this point what if anything will be unearthed. If the company concerned is not willing to fully participate or prevents a free flow of information the likelihood of the process revealing value opportunities is reduced.

Where the focus of the enquiry has been on technologies and change within the value arena, the COI report has always revealed a value opportunity centred on a technology and intellectual property strategy. Where the COI focus has been on company and leadership, recommendations have focused on policy and the means to stimulate change.

The commercial exploitation of the 27 value opportunities mentioned above raises the issue of funding and finance.

Financing the value opportunity revealed through the process

The ideas-lab process has been seen to reveal potential commercial value in 80% of companies. To date, value recommendations have been determined through the experience of the research team combined with the process. Where the opportunities identified have been positively assessed further action has been necessary:

- The researchers have developed a strategy document to support the implementation and development of the value opportunity.

- Where finance does not exist to support the implementation of the value opportunity, the researchers have directed companies to fund and/or grant opportunities or organizations that may be able to assist financially.

This is not an ideal solution as the value opportunity is likely to require support from seed fund or in some cases proof of concept funding. Invariably this leads to the need for due diligence, a costly process in both time and money for the fund bodies concerned. Further research is underway to assess whether the likely impact of a proposed value opportunity can be determined at a pre-investment stage. This work aims to quantify the value created and accurately predict the likely success rate of the proposed opportunity. It is envisaged that this will provide investors with a level of confidence and assist any decision involving a key point of change and any form of due diligence, either internal or external to the company; and would subsequently become a highly valuable tool. The researchers are currently developing networks within the venture capital community to trial such a tool.

Some common attributes of SMEs have already emerged. If the company wishes to progress with an identified value opportunity it should have both a high level of competency in it's specialist field and remain open to third party involvement to create both commercial networks and commercially focused decisions.

The larger of the medium sized companies tended to focus on their 'ordinary activities' and were not able to utilise resources for development activities. The smaller companies tended to have core technology with a clear development path, however management often lacked the ability to commercially exploit the technology. Many of these managers could be described as technical experts in their particular field with a background in research and development.

Implementation of value opportunities

Some of the participating companies have used the cornerstones report to form a strategy to raise finance for the value opportunity. For example, a renewable energy company (6) registered their intellectual property and implemented a commercialisation strategy devised by the researchers; this assisted them in raising a further £10m funding.

Anecdotal evidence would suggest that 1-in-3 companies adopted part or all of the strategy developed by the researchers. Company 20 stated, "We want to action the recommendations made". Companies 26 and 22 both recognised the impact of the programme on their own approach "The purpose of the document was to throw ideas at us and stimulate our thinking which is what it did" (Company 26) "We consider the report to be a contributing factor to our thought processes" (Company 22).

Through informal discussions the researchers are aware that companies (2), (6), (7), (20), (21), (22), (26), (27), (28) and (32) in table 1. have acted on at least 50% of the recommendations, with 3 companies adopting the recommendations in full. The researchers have discovered that the companies who do adopt demonstrate:

- a willingness to change and

- an openness to communicate

These attributes have latterly been incorporated into the company selection criteria.

Placing a financial value on the outcome of the ideas-lab process has been very difficult. On one hand it is easily argued that the process is exploratory and may in certain cases be little other than an independent appraisal, however, in 80% of cases, an opportunity has been identified and this has a monetary value. The value impact demonstrated by company 28 was just 1% however this would equate to £180,000 of company turnover as all recommendations were implemented. In addition to this, the company went onto request a study be conducted into uses of their new technology carbon nano-tubes. In another example identified above, the strategy developed by the researchers contributed to the company's ability to secure a further £10m development funding.

Creating a consortium based value arena for commercial collaboration

Whilst the concept of the value arena has been successfully exploited for the benefit of individual companies the researchers have also explored the use of multiple perspective techniques to frame consortium based problem space. By constructing a value arena that different companies can operate within, the researchers have been able to nurture collaboration and to create business opportunities between companies who might otherwise see themselves as competitors. A working example is the High Value Low Carbon (HVLC) consortium project, developed to stimulate business activity around the theme of low carbon vehicles. The HVLC consortium comprises:

- 4 international automotive manufacturers,
- 3 research centres
- 7 component manufacturers
- 5 technology companies
- The regional development agency ONE North-East

The HVLC project has enabled companies to interact within this particular value arena and as a result a number of 'spin-off' commercial opportunities have been initiated. By bringing carefully selected companies together in this arena, the consortium has attracted the interest of a major power supplier with a view to supporting a five-year collaborative programme.

Reflection and Conclusion

Figure 4 aims to summarise the relationship between the main ideas-lab centres of enquiry and the contribution of the process, described in the two central sections (figure 4) as 'value innovation'. Change creates opportunities for companies to develop both new IP and valuable new applications for their existing IP, however 25 out of 34 COI reports have been concerned with the lack of comprehensive intellectual property coverage, promotion and exploitation. Our experience to date indicates that companies are rarely unable to protect their know how. In fact there is only one COI report that identifies that a company was unable to secure their rights and this was due to market saturation i.e. competitive companies selling an identical product. More often, we have found that companies have the ability and resources to build the value of their intellectual property portfolio if they are made aware of how this can be achieved. In general our observations indicate that smaller SME's and start-ups consider IP to be very important, whereas medium sized companies are less concerned. There seems to be an understanding that the larger they become, the less important IP becomes. Comments include *"who is going to take us on?"* (Company13) or *"it is all about first mover advantage"* (company 5) or *"they* (the competition) *will patent hop anyway"* (company 17). Part of the ideas-lab role has been to reintroduce the importance of IP and the significant value it can generate with particular focus around licensing potential and alternative applications and markets. The ideas-lab research team specializes in this particular area and has an ability to cover a very broad spectrum of patentable technology. We have adopted the premise that, it does not matter what the company technology is, but that the company's core values and the way these values are exploited is critical.

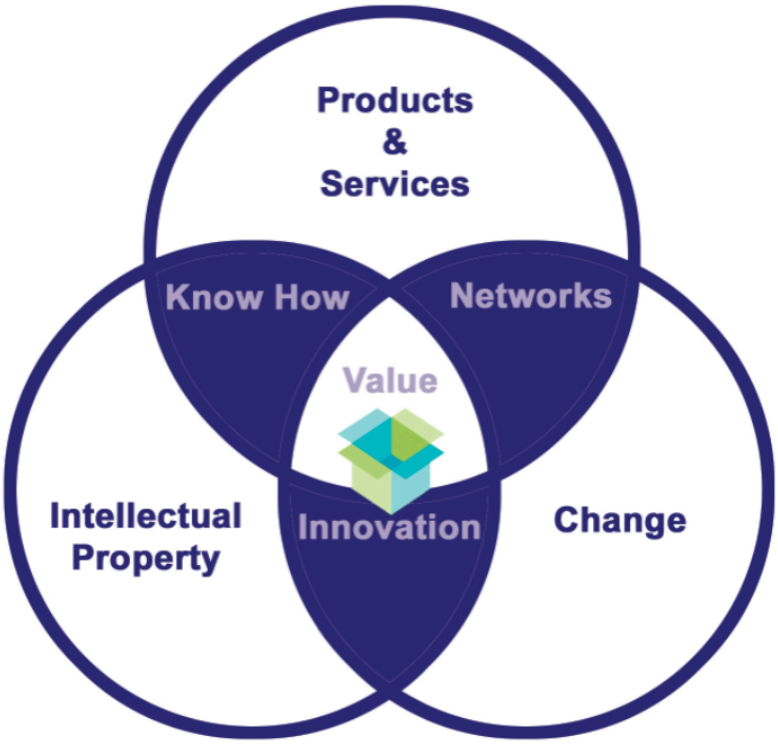

Figure 4: Ideas-lab value innovation model

The 'fresh eyes' approach whereby companies are analysed without prior knowledge or understanding of techniques or prior art has proved one of the greatest strengths of the process. A general enquiry question asks 'What can you do with this technology?' This question has revealed many opportunities regarding the development of new applications for existing technology utilizing the core IP and company strengths in different ways.

12 of the 34 companies (including 3 businesses with over 100 employees) were encouraged to develop their brand strategy and where appropriate product themes. The researchers found that some product ranges and services were poorly described and promoted to the intended customers, here a clearer marketing message was required to make it easier for clients and customers to see the specific value on offer and remember it. Numbers identified some products and some services were described by obscure names. Company 3 however, created a theme throughout their range, each product being named after a rank in the army, navy and air force such as admiral or colonel. The product range was instantly recognizable and stood out from the competition, more importantly these terms had entered the vocabulary of the company's clients and the industry as a whole. 30% of companies did not own trademarks for their products and services, this was due to cost or a lack of understanding. Where brand names were identified, trademarks were recommended to prevent 'passing off'.

30% of companies analysed were found to have issues directly relating to current management and the management structure. In two cases it was difficult to communicate these issues to the individuals involved and the COI report provoked something of an explosive reaction.

The ideas-lab process as outlined was found to be of most significant value to the following categories of company:

- **SMEs** wishing to diversify, expand or maximise the use of their technology and intellectual property

- **Start-up companies** seeking independent appraisal
- **Pre start-up or Spin-outs** focussed on commercialisation of new technology and intellectual property

This is possibly due to the strategic focus of the ideas-lab star model (figure 2) as outlined above. Company 22 summarized the value of the process, stating, "The Ideas-lab process helped us to recognise untapped commercial value in our technology and our expertise" whilst Company 28 endorsed the process describing it as "a valuable service which we thoroughly recommend". Many of the businesses analysed responded to the cornerstones of innovation report by asking the researchers for further assistance to capitalize on the value opportunities revealed by the process. In some cases this has led to the development of a second stage of involvement focusing on the implementation of strategic recommendations and in particular the relationship of the value proposition and route to market. Whilst the initial ideas-lab enquiry stage 1 (figure 5) is typically 6 researcher-days, stage 2 requires around 30 researcher-days over 2 to 3 months to develop a strategy that can be implemented.

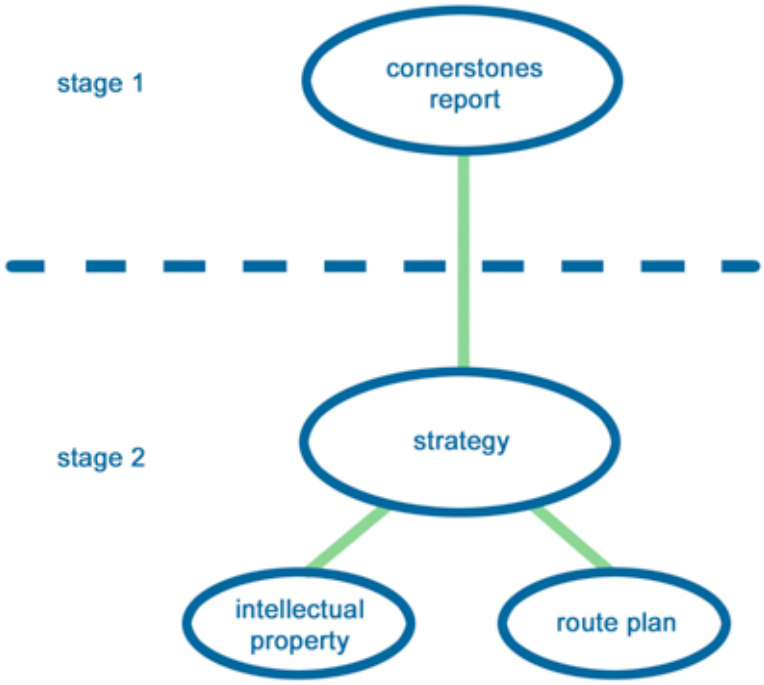

Figure 5: Ideas-lab two stage proposition.

This investigation has been focused on the commercial needs of business to capitalize on technology and know how in order to generate revenue. Through the process described the researchers have endeavoured to connect company technology and know how to commercial opportunities based on value proposition and route to market. The individual strategies were constructed around the ideas-lab framework and whilst every company was different, patterns and common attributes are beginning to emerge. The team aims to carry out further investigative research in this area.

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A specialist in design practice innovation Stuart is director of the Ideas-lab at Northumbria University. His work on relational problem framing has initiated new methods, new products and new IP through an inclusive approach based on design led entrepreneurship. This addresses multi and cross-disciplinary contexts bounded by clarity of market objectives, and has led to numerous new companies and filed patents.

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Senior Value Innovator at Northumbria University Ideas-lab, Tim is an experienced inventor and is named on over 70 patents. His work aims to reveal hidden and untapped commercial value for business.

William Jackson
Innovation Consultant with Iconet Ltd Will Jackson is an experienced entrepreneur with a record of achievement in improving both profit and performance. Will's focus is on establishing and implementing strategies for exploiting existing and new markets in addition to substantial restructuring of resources to achieve efficiency, growth and cultural change.